



GDS Associates, Inc.
Engineers and Consultants

RENEWABLE ENERGY RESOURCES ELIGIBILITY
GDS TEAM RECOMMENDATION
For Consideration By The
STATE OF RHODE ISLAND PUBLIC UTILITIES COMMISSION
(Version 6 – August 20th, 2013)

Date: December 17, 2013
Docket #: 4421

Generation Unit and Contact Information:

Unit Name: Orange #1 and Orange #2 (Mini-Watt Hydroelectric)

Unit Owner: Stephen J. Fisk, General Manager, Mini-Watt Hydroelectric

Unit Size (max. MW): 0.455 MW *Location (city, state):* Orange, MA

Commercial Operation Date: January 1, 1940

Contact Name, Numbers and Address: Primary: William P. Short III, Consultant,
P.O. Box 237173, New York, NY 10023-7173 Phone:(917) 206-0001 Fax:(917)
206-0001 Email: w.shortiii@verizon.net

Backup: Stephen J. Fisk, General Manager, Mini-Watt Hydroelectric, LLC c/o
O'Connell Energy Group, 57 Suffolk Street, Suite 200, Holyoke, MA 01040
Phone: (413) 534-4660 Fax: (413) 536-4911 Email: sfisk@oconnells.com

Authorized Representative Name, Numbers and Address: William P. Short III,
Consultant, P.O. Box 237173, New York, NY 10023-7173 Phone:(917) 206-
0001 Fax:(917) 206-0001 Email: w.shortiii@verizon.net

Application Received: Date: 11/06/2013 (re-submittal)

Comments: Original submittal was received on 6/17/2013 but did not include Orange #1. Re-submittal came after long discussions with the applicant and Commission. The facility maintained the same docket #. Supplemental information provided by applicant on December 5th..

Type of Certification Requested:

Standard Certification Prospective Certification (Declaratory Judgment)

Generation Type and Technology Information: *(check all that apply)*

Repowered Project Incremental Generation Incremental Intermittent

Customer-Sited or Off-Grid System (or associated aggregations)

Generation Unit Located in Control Area Adjacent to NEPOOL:

Solar Wind Ocean Thermal Geothermal Small Hydro

Eligible Biomass Unlisted Biomass Biomass (fossil co-fired/multi-fuel)

Fuel Cell (using an eligible renewable resource)

Recommendation:

- Approve (GIS Certification #: Orange #1 - MSS854 Orange #2- MSS855)
Reject Public Hearing Needed
 Existing Renewable Energy Resource New Renewable Energy Resource
 Capable of Producing as Both Existing & New Renewable Energy Resource

Comments: 37% New and 63% Existing

RENEWABLE ENERGY RESOURCES ELIGIBILITY
DETAILED GDS TEAM APPLICATION REVIEW RESULTS

(Template V5 – 11/15/11)

Date of Final Review: 12/17/2013

Note: Depending on the type of application (project vintage, type, location, fuel source, etc.) not all of these data items will be applicable.

A. Renewable Energy Resource – Vintage (*see appropriate Sections of RES Regulations, Application Sections 3.1-3.9 and Appendix C*):

A.1 Generation Unit meets the definition of an Existing Renewable Energy Resource noted in RES Regulations Section 3.10 (first entering commercial operation before 12/31/1997). Yes No

Comments: Orange #1 (Turbine T1) was installed in 1940 while in Orange #2 Turbine 2 (T2) was intalled in 1995.

A.2 Generation from the Unit meets one of the definitions of New Renewable Energy Resource in RES Regulations Section 3.23.

Yes No N/A

Comments: In Orange #2 Turbine 3 (T3) was completely replaced in 2010 with a COD of 11/30/2010. This led to a greater than 10% increase in output for the collective facility due to a 40 kW increase in capacity from the original T3 and an increase in efficiency, especially at low flows, due to new controls and the higher efficiency of the replaced turbine.

A.2.1 If Generation Unit is at a new site, adequate documentation is provided to ensure that it first entered commercial operation after December 31, 1997. Yes No N/A

Comments: Existing Site

A.2.2 If Generation Unit is at the site of an Existing Renewable Energy Resource, adequate documentation is provided to ensure that it first entered commercial operation after December 31, 1997 and that the Existing Renewable Energy Resource has been retired and replaced with such new Generation Unit. Yes No N/A

Comments: Incremental Increase

A.2.3 If a Repowered Generation Unit (as defined in Section 3.29 of the RES Regulations – complete replacement of Prime Mover, material increase in efficiency or material decrease in air emissions, and demonstration that at least 80% of resulting tax basis of the entire Generation Unit's plant and equipment is derived from capital expenditures made after December 31, 1997), adequate documentation is provided to ensure that the entire output of said unit first entered commercial operation after December 31, 1997 at the site of existing Generation Unit. Yes No N/A

Comments: Incremental Increase

A.2.4 If a multi-fuel facility, adequate documentation is provided to ensure that the renewable energy fraction of output from a Generation Unit in which an Eligible Biomass Fuel is first co-fired with fossil fuels after December 31, 1997. Yes No N/A
Comments:

A.2.5 If Incremental Output from a non-Intermittent Existing Renewable Energy Resource, adequate documentation is provided to ensure that such output is attributable to capital investments for efficiency improvements or additions of capacity that were demonstrably completed after December 31, 1997 and that are sufficient to, were intended to, and can be demonstrated to increase annual electricity output in excess of ten percent (10%) over a Historical Generation Baseline as determined per Section 3.23.v of the RES Regulations. Yes No N/A
Comments: Intermittent- Small Hydro

A.2.6 If Incremental Output from an Intermittent Existing Renewable Energy Resource, adequate documentation is provided to ensure that such output is attributable to capital investments for efficiency improvements or additions of capacity that were demonstrably completed after December 31, 1997 and that are sufficient to, were intended to, and can be demonstrated to increase annual electricity output in excess of ten percent (10%) over a Historical Generation Baseline as determined per Section 3.23.vi of the RES Regulations. Yes No N/A
Comments: The Facility submitted the Commission's New/Existing Spreadsheet with the baseline period (and an extended baseline period) and post 11/20/2010 T3 replacement generation filled in. Adequate evidence was provided to show that this increase was due to the replacement of T3 and the capital investments involved which led to both capacity and efficiency increases at the site.

B. Eligible Customer-Sited/Off-Grid Generation Facility: Yes No
(see appropriate Sections of RES Regulations, Application Section 5 and Appendix D)

B.1 Adequate documentation provided to ensure that NEPOOL GIS Certificates are created by way of an aggregation of Generation Units, physically located in the State of Rhode Island, using the same generation technology (see RES Regulations Section 6.8.i). Yes No
Comments: N/A

B.2 Proposed Aggregation Agreement (as specified in Section 6.8.iii of the RES Regulations) is reasonable and complete. Yes No
Comments: N/A

B.2.1 Aggregation Agreement includes name and contact information of the aggregator owner. Yes No
Comments: N/A

B.2.2 Aggregation Agreement includes name and contact information and adequate evidence of qualifications of the Verifier to ensure that the Verifier will accurately and efficiently carry out its duties. Yes No
Comments: N/A

B.2.2.1 Additional evidence of Verifier qualifications requested and provided. Yes No N/A
Comments: N/A

B.2.3 Aggregation Agreement includes a declaration of any and all business or financial relations between aggregator and Verifier sufficient to ensure the independence of the Verifier in accordance with Section 6.8.iii.c of the RES Regulations (10% or more ownership in voting stock, or family officer/etc). Yes No
Comments: N/A

B.2.3.1 Aggregation Agreement includes statement indicating under what circumstances the Verifier would not be considered sufficiently independent of the individual Generation Unit, and that Generation Units not meeting this independence test would not be allowed to participate in the aggregation. Yes No
Comments: N/A

B.2.4 Aggregation Agreement identifies the type of technology that will be included in the aggregation and provides a statement that the aggregation will include only individual Generation Units that meet all the requirements of the RES Regulations (physical location, vintage, etc.). Yes No
Comments: N/A

B.2.5 Aggregation Agreement provides an adequate description of proposed operating procedures for the aggregation, by which the Verifier shall ensure that individual Generation Units in the aggregation comply with all eligibility requirements and that the NEPOOL GIS Certificates created accurately represent generation (see Section 6.8.iii.e of the RES Regulations). Yes No
Comments: N/A

B.2.5.1 At a minimum the proposed operating procedures include reasonable and sufficient details for:

- Determining that the Generation Unit exists and is in compliance with RES Regulations and Commission-approved Aggregation Agreement. Yes No
- Meter reading procedure that allows the Verifier to verify these readings (manual or remote, via the aggregators own system or an independent system) in a manner fully compliant with NEPOOL GIS Operating Rules regarding metering. Yes No
- Specifying how generation data will be entered into NEPOOL GIS to create Certificates. Yes No
- Documenting a procedure to verify independently that the GIS Certificates created for the aggregation are consistent with the meter readings. Yes No
- Correcting discrepancies in NEPOOL GIS Certificate generation identified by the Verifier. Yes No

Comments: N/A

B.2.6 Aggregation Agreement provides an adequate description of how the Verifier will be compensated for its services by the aggregator (in no instance is the Verifier is compensated in a manner linked to the number of NEPOOL GIS Certificates created by the aggregation). Yes No

Comments: N/A

C. Generation Unit Location (*see appropriate Sections of RES Regulations, Application Section 5 and Appendix E*):

C.1 Generation Unit is located in NEPOOL Control Area. Yes No
 Comments: Orange, MA on the Millers River

C.1.1 Generation Unit is located in Rhode Island. Yes No
 Comments: Orange #1 - 16 West Street Ornag #2 - 18 Chase

Court REAR

C.2 Generation Unit is located in a control area adjacent to NEPOOL and, in accordance with Section 5.1.ii of the RES Regulations, will apply the associated Generation Attributes to the RES only to the extent that the energy produced by the Generation Unit is actually delivered into NEPOOL for consumption by New England customers. Yes No
 Comments: MA

C.2.1 Applicant acknowledges that satisfactory documentation (i.e., a report from neighboring Generation Attribute accounting system or an affidavit) must be provided to verify that Generation Attributes from a Generation Unit located in a control area adjacent to NEPOOL have not otherwise been, nor will be, sold, retired,

claimed or represented as part of electrical energy output or sales, or used to satisfy obligations in jurisdictions other than Rhode Island (such assurances may consist of a report from a neighboring Generation Attribute accounting system or an affidavit from the Generation Unit) Yes No
Comments: N/A

C.2.2 Applicant acknowledges that energy delivered from such Generation Unit into NEPOOL will be verified by the following:

- A unit-specific bilateral contract for the sale and delivery of such energy into NEPOOL
- Confirmation from ISO that the energy was actually settled in the ISO Market Settlement System, and
- Confirmation through the North American Reliability Council tagging system that the import of the energy into NEPOOL actually occurred, or such other requirements as the Commission deems appropriate

Yes No
Comments: N/A

D. Eligible Fuel Source – Solar, Wind, Ocean Thermal, Geothermal, or Fuel Cell (using an eligible renewable resource) (see appropriate Sections of RES Regulations and Application Section 2.4): Yes No N/A
Comments: Small Hydro

E. Eligible Fuel Source – Small Hydro Facilities (see appropriate Sections of RES Regulations and Application Sections 2.5-2.6): Yes No N/A

E.1 Aggregate capacity does not exceed 30 MW. Yes No
Comments: 0.455 MW (section 2.2) which includes both Orange #1 and Orange #2 together

E.2 If “New Renewable Energy Resource”, applicant acknowledges that facility does not involve any new impoundment or diversion of water with an average salinity of 20 parts per thousand or less. Yes No
Comments: Section 2.6 of Application

F. Eligible Fuel Source – Biomass Facilities (see appropriate Sections of RES Regulations, Application Sections 2.7 and Appendix F): Yes No N/A

F.1 Generation Unit uses a biomass fuel source listed in RES Regulations Section 3.7. Yes No
Comments: N/A

F.2 If source is other than RES Regulations Section 3.7-listed, said source has been designated as “clean wood”. Yes No

Comments: N/A

F.3 Fuel Source Plan can reasonably be expected to ensure that only Eligible Biomass Fuels will be used, and in the case of co-firing ensure that only that proportion of generation attributable to an Eligible Biomass Fuel be eligible. Yes No

Comments: N/A

F.3.1 Fuel Source Plan specifies the type of Eligible Biomass Fuel to be used. Yes No

Comments: N/A

F.3.2 If proposed fuel is “clean wood”, Fuel Source Plan provides adequate substantiation as to why the fuel source should be considered a clean wood. Yes No N/A

Comments: N/A

F.3.3 In the case of co-firing with a fossil fuel, Fuel Source Plan includes an adequate description of how such co-firing will occur and how the relative amounts of Eligible Biomass Fuel and fossil fuel will be measured, and how the eligible portion of generation output will be calculated (with such calculations based on the energy content of the proposed fuels used). Yes No N/A

Comments: N/A

F.3.4 Fuel Source Plan includes an adequate description of what measures will be taken to ensure that only the Eligible Biomass Fuel is used (e.g., standard operating protocols or procedures that will be implemented at the Generating Unit, contracts with fuel suppliers, testing or sampling regimes). Yes No

Comments: N/A

F.3.5 Fuel Source Plan includes adequate assurance that the fuels stored at or brought to the Generation Unit will only be Eligible Biomass Fuels or fossil fuels used for co-firing. Yes No

Comments: N/A

F.3.6 If proposed fuel includes recycled wood waste, Fuel Source Plan provides adequate documentation to ensure that such fuel meets the definition of Eligible Biomass Fuel and also meets material separation, storage, or handling standards acceptable to the Commission and furthermore consistent with the RES Regulations. Yes No N/A

Comments: N/A

F.3.7 Applicant certifies that it will file all reports and other information necessary to enable the Commission to verify the ongoing eligibility of the renewable energy generators pursuant to Section 6.3 of the RES Regulations.

Yes No N/A

Comments: N/A

F.3.8 A copy of the Generation Unit's Valid Air Permit or equivalent authorization has been attached and the effective date and issuing state or jurisdiction has been identified.

Yes No N/A

Comments: N/A

G. Other Comments/Observations: This site is unique in that for one impoundment there are two separately metered power plants and associated generation units (Orange #1 and Orange #2) with a total of three turbines between them. After a submittal for just Orange #2 which contained the new T3 turbine, since both power plants are controlled by the same PLC system which favors the efficient T3 turbine, it was determined by the Commission and the applicant that a resubmittal to include both Orange #1 and #2 in the same submittal would be preferable. This has led to this submittal having two GIS #'s attached to it which will both have the same new/existing percentage.